

# Electric Motor with External Rotor

## Abstract of Disclosure

An electric motor comprises a shaft to which a stator is fixedly mounted and a rotor is rotatably mounted. The shaft is stiffened by a plurality of plates mounted to the shaft and held in compression thereon. The position of the rotor relative to the shaft and the speed of rotation of the rotor relative to the shaft are determined by a highly accurate opto-reflective sensor assembly. The shaft is mounted to a structural support by way of a mounting block that dampens virtually all vibrations generated by the motor for quiet operation. A rotor extension provides adaptability for operation with wider belts e.g. a treadmill.